

R E M A R K S

Reconsideration of this application is respectfully requested.

Claims 1-9 were rejected under 35 USC 103 as being obvious in view of the combination of US 2001/0009443 ("Suemoto et al") and USP 6,401,202 ("Abgrall"). This rejection, however, is respectfully traversed.

Independent claim 1 recites a camera device comprising: an optical system; a setting unit configured to set an initialization of the optical system to drive the optical system to a predetermined state as an interrupt processing of an operating system before the operating system is started; and a control unit which starts the initialization of the optical system before the operating system is started when a recording mode for photographing is set, and which suspends the initialization of the optical system when a playback mode for display is set.

The Examiner asserts that Suemoto et al discloses an optical system and a control unit as recited in claim 1. The Examiner acknowledges, however, that Suemoto et al does not disclose a setting unit configured to set an initialization of the optical system to drive the optical system to a predetermined state as an interrupt processing of an operating system before the operating

system is started. For this reason, the Examiner has cited Abgrall to supply the missing teachings of Suemoto et al.

Independent method claim 4 and independent computer readable storing medium claim 7 have been rejected in a similar manner to claim 1, and the Examiner asserts that all of claims 1-9 are obvious in view of the combination of Suemoto et al and Abgrall.

It is respectfully submitted, however, that even if Suemoto et al and Abgrall were reasonably combinable, the features recited in independent claims 1, 4 and 7 still would not be achieved or rendered obvious.

In more detail, the Examiner asserts on page 2 of the Office Action that Suemoto et al discloses a control unit "which starts the initialization of the optical system before the operating system is started, i.e., before a photographing processing can be carried out as an interrupt (see paragraph [0076])."

Based on this statement, it appears that the Examiner is equating "photographing processing" with "an operating system." It is respectfully submitted, however, that an operating system is clearly not the same as taking a picture. For example, such a definition of "operating system" would clearly conflict even with the definition of "operating system" according to the secondary reference cited by the Examiner (Abgrall), which defines an "operating system" as a "set of one or more programs which control the computer system's operation and the allocation of

resources." It is respectfully submitted that, in fact, according to Suemoto et al the lens system is driven in steps 206 and 208 of FIG. 8A, meaning that the lens system is not driven before the start of the OS.

It is also unclear whether the Examiner considers paragraph [0076] of Suemoto et al to disclose performing initialization of an optical system as an interrupt, or performing photographing as an interrupt. It should be understood that paragraph [0076] of Suemoto et al only discloses that photographing may be performed as an interrupt after initialization of an optical system reaches a certain stage, but is not complete.

Moreover, as noted above, the Examiner acknowledges that Suemoto et al does not disclose a setting unit configured to set an initialization of the optical system to drive the optical system to a predetermined state as an interrupt processing of an operating system before the operating system is started. Indeed, it is respectfully submitted that according to Suemoto et al, the optical system is driven after it is determined that the photographing mode is set (paragraphs [0066] and [0067] and steps 206 and 208 in Fig. 8A).

Abgrall has been cited as disclosing "a BIOS device enabled for multitasking by using interrupt signals at predetermined interrupt times." According to Abgrall, an interrupt sequence

corresponding to a plurality of interrupt times is generated at the beginning of the BIOS. A first task is performed at the interrupt times, and a second task is performed between successive interrupt times. (See the abstract and column 2, lines 32-36 of Abgrall.)

The Examiner asserts that it would be obvious to modify Suemoto et al in view of the teachings of Abgrall "to initialize the optical system of Suemoto et al to a known state before loading the operating system" (Office Action page 3).

It is respectfully pointed out, however, that according to Suemoto et al the lens system is driven in steps 206 and 208 of FIG. 8A, meaning that the lens system is not driven before the start of the OS. Moreover, according to paragraph [0081] of Suemoto et al (cited by the Examiner on page 3 of the Office Action), the start-up processing is shortened by simultaneously driving the stepping motor 72 for focusing and the DC motor 70 for zooming. And it is respectfully submitted, therefore, that it is not necessary or obvious to integrate the multitasking operation of the BIOS device taught by Abgrall to initialize the optical system of Suemoto et al to a known state before loading the operating system as suggested by the Examiner.

By contrast, according to the present invention as recited in independent claim 1, a setting unit is configured to set an initialization of the optical system to drive the optical system

to a predetermined state as an interrupt processing of an operating system before the operating system is started. Moreover, a control unit is provided which starts the initialization of the optical system before the operating system is started when a recording mode for photographing is set, and which suspends the initialization of the optical system when a playback mode for display is set.

For example, as explained in the specification at page 20, line 3 to page 21, line 2, "the zoom-open operation of the zoom lens is started before startup of the OS by the boot program 101, and the interrupt processings for carrying out the processing are carried out by using a predetermined interrupt processing routine which is set after the OS is started. Therefore, even if the OS is started on the way of initializing of the lens group 11, the zoom-open operation of the lens group 11 can be continued without being affected by the setting of the interrupt processing routine due to the OS. Accordingly, a plurality of CPUs are not required, and the zoom-open operation of the lens group 11 (an initialization of the optical system), the loading and startup of the OS, the preparations for initializations at the other portions by the main program 102 can be simultaneously carried out at a low cost. As a result, the interrupt processing for initializing the optical system is carried out before the startup of the operating system. Moreover, the initialization of the

optical system can be continued without being affected by the setting of the interrupt processing routine accompanying the startup of the operating system on the way of the initialization. Accordingly, a shortening of the starting time can be aimed for at a low cost in the configuration having the collapsible mount type lens group 11 as well."

If the operating system is started during the initialization processing for driving the optical system to the predetermined position, the operating system sets a new interrupt processing so that the initialization set as an interruption is reset or replaced with new interrupt processing and thus the initialization processing cannot be performed any more.

It is respectfully submitted that even if Suemoto et al and Abgrall were combinable as suggested by the Examiner, the structural features and advantageous effects of the present invention as recited in independent claim 1 still would not be achieved or rendered obvious.

Independent claims 4 and 7, moreover, recite: setting an initialization of the optical system to drive the optical system to a predetermined state as an interrupt processing of an operating system before the operating system is started; determining, when starting up the camera device, whether one of a recording mode for photographing and a playback mode for display is set; and starting the initialization of the optical

system before the operating system is started when it is determined that the recording mode for photographing is set, and suspending the initialization of the optical system when it is determined that the playback mode for display is set.

In view of the foregoing, is respectfully submitted that even if Suemoto et al and Abgrall were combinable as suggested by the Examiner, independent claims 4 and 7 also would not be achieved or rendered obvious.

And in view of the foregoing, it is respectfully submitted that independent claim 1, 4 and 7, and claims 2-3, 5-6 and 8-9 respectively depending therefrom, clearly patentably distinguish over Suemoto et al and Abgrall, taken singly or in combination, under 35 USC 103.

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Entry of this Response, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned for prompt action.

Respectfully submitted,

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